

Attorney Docket No. P67314USO
Application No. 09/826,683

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Remarks/Arguments:

Applicant wishes to thank the Examiner for restarting the period of reply to begin with the mailing date of the instant Office Action (mailed August 20, 2003), as requested by Applicant in the paper filed July 11, 2003.

Applicant, also, wishes to thank the Examiner for the acknowledgment of the § 119 priority claim and receipt of the certified copy of the priority document, as indicated in the instant Office Action.

Claims stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite. Reconsideration is requested in view of the changes to the claims affected, hereby, taken together with the following remarks.

In accordance with the instant amendment, the terminology "approximately," "a little larger," "just a little," and "almost all" which are allegedly indefinite, are not recited in the present claims.

The present claims do include the modifier "substantially," which one of ordinary skill in the art would readily understand the meaning of, taken in the context of the presently claimed invention. As such, "substantially" as used in the present claims is not indefinite under §112, ¶2. MPEP 2173.05(b)(D), i.e.:

Relative Terminology

The fact that claim language, including terms of degree, may not be precise, does not automatically render the claim indefinite under 35 U.S.C. 112, second paragraph. *Seattle Box Co., v. Industrial Crating & Packing, Inc.*, 731 F.2d 818, 221 USPQ 568 (Fed. Cir. 1984). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed, in light of

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the specification. . . . While, as a general proposition, broadening modifiers are standard tools in claim drafting in order to avoid reliance on the doctrine of equivalents in infringement actions, when the scope of the claim is unclear a rejection under 35 U.S.C. 112, second paragraph is proper. See *In re Wiggins*, 488 F. 2d 538, 541, 179 USPQ 421, 423 (CCPA 1973). . . .

D. "Substantially"

The term "substantially" is often used in conjunction with another term to describe a particular characteristic of the claimed invention. It is a broad term. *In re Nehrenberg*, 280 F.2d 161, 126 USPQ 383 (CCPA 1960). The court held that the limitation "to substantially increase the efficiency of the compound as a copper extractant" was definite in view of the general guidelines contained in the specification. *In re Mattison*, 509 F.2d 563, 184 USPQ 484 (CCPA 1975). The court held that the limitation "which produces substantially equal E and H plane illumination patterns" was definite because one of ordinary skill in the art would know what was meant by "substantially equal." *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 USPQ2d 2010 (Fed. Cir. 1988).

See, *Ex parte Oetiker*, 23 USPQ2d 1651 (BPA&I 1990).

With respect to the term "an excess of," the term is not indefinite, contrary to the allegation contained in the statement of rejection. The term is not indefinite since one of ordinary skill in the art would readily understand what is meant by "an excess amount" in view of the teachings set forth in the present specification.

The correct test for indefinite claim language is whether one of ordinary skill in the art would be confused as to the meaning of subject matter defined by the language at issue. *In re Kroegel*, 183 USPQ 610 (CCPA 1974). While *limitations* from the specification cannot be read into the claims, words in the specification are properly used during prosecution as an aid in *interpret existing claim limitations*. The PTO has been cautioned not to confuse the former with the later.

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The Commissioner confuses [1] impermissibly imputing limitations from the specification with [2] properly referring to the specification to determine the meaning of a particular word or phrase recited in a claim.

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In re Donaldson Co. Inc., 29 USPQ2d 1845, 1850 (Fed. Cir. 1994). Merely that it requires some thought to understand the meaning of a claim term does not render the term indefinite under §112, ¶2. *S3 Inc. v. nVIDIA Corp.*, 59 USPQ2d 1745 (Fed. Cir. 2001):

The purpose of the claims is not to explain the technology or how it works, but to state the legal boundaries of the patent grant. A claim is not "indefinite" simply because it is hard to understand when viewed without benefit of the specification.

59 USPQ2d at 1748.

As disclosed in the instant specification (page 2, line 10, through page 3, line 18), an object of the presently claimed invention, i.e., to achieve optimum properties in term to performance, durability, and resistance to presently claimed discharges and mechanical shocks, while the release of gases is avoided, can only be achieved if the amount of liquid electrolytic medium is equal to, or little larger than, the volume of a dry packing of the metal and/or alloy particles. Only then it is assured that mixture exhibits "direct contact between substantially all of the particles" (as such, moreover, the subject matter of claims 1, 2, and 3 is combined as new claim 8, as mentioned, above.) Therefore, the meaning of the phrase "an excess amount," as used in the present claims, being readily understood by one skilled in the art in view of the teachings of the present specification, the phrase satisfies the requirements for definitive claim language under §112, ¶2, *Donaldson Co. Inc.*, *supra*, *S3 Inc.*, *supra*, MPEP 2173.05(b)(D), *supra*, and the rejection as applied against the claim term is in order for withdrawal.

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Moreover, to the extent the alleged indefiniteness of the term "in excess of" is based on the breadth (i.e., scope) of the claim term, the rejection cannot be maintained, since claim "breadth is not to be equated with indefiniteness." *In re Miller*, 169 USPQ 597, 600 (CCPA 1970).

Claims 1-5 stand rejected under 35 USC 102(b) as allegedly anticipated by, or alternatively under 35 USC 103(a) as allegedly obvious over, JP 50-032,437 (Hitachi). Claims 1-5 and 7 stand rejected under 35 USC 102(b) as allegedly anticipated by, or alternatively under 35 USC 103(a) as allegedly obvious over, US4172924. Claims 1-7 stand rejected under 35 USC 103(a) based on the combined teachings of Hitachi and Tada. Claims 1-7 stand rejected under 35 USC 103(a) based on the combined teachings of US4172924 combined with either Yasumura or Tsutsui. Reconsideration of the aforesaid rejections under §102(b) and §103(a) is requested.

Hold
Hitachi describes an alkaline battery using a mercapto carboxylic acid together with zinc powder instead of using zinc amalgam powder. Accordingly, Hitachi neither teaches nor suggests the presently claimed invention and, therefore, is incorrectly rejected under §102(b) and §103(a). ** ↗*

Tada (JP-04-284,357) provides teachings in connection with a mercury-free, zinc-alloy powder with indium, which has a bulk specific gravity between 0.29 to 3.50 g/cm³. Tada provides no teaching or suggestion as to the specific amount of the liquid electrolytic medium, which according to the presently claimed invention, has to be equal or (a little) larger than the volume of the dry packing of the metal and/or alloy particles. This approximates the spaces between the particles in the dry packing. Therefore, Tada provides no motivation for modifying Hitachi in order to attain the presently claimed invention. *(A)*

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Additionally, the mixtures introduced into the battery usually have a density of 3 g/ml. 6 Grams, thereof, are introduced into a LA_x cell. This means that the free value in the cell is 2 ml. $\approx 6g$ Using a powder according to Tada with 0.29 g/ml, it is impossible to bring the necessary amount of zinc into the cell. If, however, the density is 3.5 g/ml, part of the cell remains empty and, therefore, is not filled with the necessary amount of liquid electrolytic medium. So, it is readily apparent that Tada does not connect (1) bulk density with (2) the volume of the liquid electrolytic medium and, so, obtain the desired properties of the mixture.

The statement of rejection is mistaken that it would have been obvious to the man skilled in the art to further improve such mixtures. Batteries in the market clearly show that the total volume is bigger than the volume of the bulk density of the zinc powder. According to the prior art, the difference in volume is made up by gelling agents, etc. The properties required, however, are only achieved, according to the presently claimed invention, when bulk density on one side and the amount of liquid electrolytic medium fit.

Warszawski (US 4172924) describes a type of battery, which is quite different. The paste used has a flow characteristic, which allows it to be pumped permanently from one side to another.

Yasumura (JP 10-032002) describes a zinc/zirconium alloy powder, i.e., which contains only 0.003 to 0.7 wt.% zirconium. This alloy is formed into the powder having a bulk density of, preferably, 0.5 to 2.4 g/cm³. The amount of liquid electrolytic medium is not disclosed in the reference; but, it consists of 40% KOH with saturated ZnO and a gelling agent. Therefore,

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Yasumura provides neither teaching nor suggestion that would have motivated one skilled in the art to modify Warszawski in order to attain the presently claimed invention.

Tsutsui (JP 07-161356) teaches an alkaline battery, which is composed of a zinc alloy in which small amounts of other metals can be found. This material can be transformed into a powder with a bulk density of 2.2. to 2.6 g/cm³. Also Tsutsui does not mention the amount of the liquid electrolytic medium. Therefore, Tsutsui provides neither teaching nor suggestion that would have motivated one skilled in the art to modify Warszawski in order to attain the presently claimed invention.

The statement of rejection is mistaken in stating that the cited references would have made obvious changes to the composition and/or the fabrication technique. None of the cited references recognized the importance of the volume of the liquid electrolytic medium corresponding to the spaces between the particles in a dry packing, i.e., the volume of the medium being equal to or (a little) larger and the volume of a dry packing of the metal. This assures direct contact among almost all of the particles. Therefore, such batteries do not need a gelling agent or only small amounts thereof.

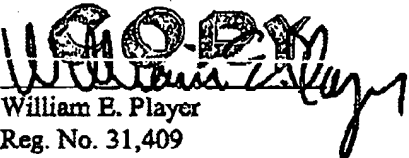
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Favorable action is requested.

Respectfully submitted,

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